

Immune System cont.

Vaccines

By infecting people with a weakened or dead form of a pathogen their body can create the right B and T cells to prevent future infection without ever having the disease.

Smallpox – 1977

Rinderpest – 2010

Polio - ?

Routine Immunisation Schedule

Age Group ↕ Vaccine ↕	2 Months	4 Months	6 Months	12 Months	18 Months	4-6 Years	Grade 6	Grade 9	Adult	65 Years and Over	High Risk Program*
Diphtheria, Tetanus, Pertussis, Hepatitis B, Polio, and Haemophilus influenzae type b (DTaP-HB-IPV-Hib) Vaccine	✓	✓	✓								
Diphtheria, Tetanus, Pertussis, Polio, Haemophilus influenzae Type b (DTaP-IPV-Hib) Vaccine					✓						
Pneumococcal Conjugate (PCV 13) Vaccine [a]	✓	✓		✓							✓ *
Rotavirus Vaccine	✓	✓									
Hepatitis A Vaccine [b]			✓ Aboriginal infants only		✓ Aboriginal infants only	✓ Aboriginal children not previously immunized					✓ *
Hepatitis B Vaccine							✓ if not previously immunized				✓ *
Measles, Mumps, Rubella (MMR) Vaccine [c]				✓		✓			✓ If susceptible		
Meningococcal C Conjugate (Men-C) Vaccine	✓			✓			✓				✓ *
Chickenpox (Varicella) Vaccine [d]				✓		✓	✓ if susceptible		✓ If susceptible		
Human Papillomavirus (HPV) Vaccine [e]							✓				
Diphtheria, Tetanus, Pertussis, Polio (DTaP-IPV) Vaccine						✓					
Tetanus, Diphtheria, Pertussis (Tdap) Vaccine								✓			✓ *
Tetanus and Diphtheria (Td) Vaccine [f]									✓ every 10 years	✓ every 10 years	
Influenza (Flu) Vaccine [g]			✓ annually for infants 6 to 23 months	✓ annually for infants 6 to 23 months	✓ annually for infants 6 to 23 months					✓ annually	✓ *
Pneumococcal Polysaccharide Vaccine										✓ 1 time only	✓ *

Allergies

An allergy is a high sensitivity to some substances, the substance acts as an antigen and triggers an immune response.

Histamine is a chemical the body releases to fight off invaders; it causes a running nose and watery eyes. Many people who have allergies take antihistamine drugs to prevent this response.

Organ Transplant

Transplanting is when an organ (such as a kidney) is taken out one person is put into another person. One of the difficulties of transplants is rejection, this occurs when the immune system of the recipient identifies the organ as an antigen and attacks it.

AIDS

HIV is the virus which causes AIDS. It attacks a type of T cells called helper T cells. Without helper T cells the immune system can not activate T or B cells and can not fight off other infections.